THE QUESTION OF WEBER'S CRAFTS-MANSHIP

Goeffrey Tootell, San Jose State University

INTRODUCTION. The argument of this essay is simple: Weber was an imaginative thinker, but a careless scholar. The importance of his contributions rests on the seminal value of his creativity, but they are flawed by his poor detailing. This is especially disastrous where it seems least visible – in the philosophic and scientific foundations of his work. And the sins of omission are more grave than the sins of commission. Weber ignored many of the great intellectual changes of his time. Such defects are not peculiar to Weber: they mar the work of all of the founding fathers.

THE GENEOLOGY OF IDEAS. Sociologists too easily overlook the historical growth of ideas. The sociology of knowledge has been concentrated on inner directions (Marx & Engels 1968; Mannheim 1936; Durkheim 1954; Merton 1949; Coser 1941). Social philosophy is filled with very uneven scholarship. Bold ideas attract, but their support is often cosmetic. Scholarship and research must be added (Kuhn 1970). Except in mathematical sociology, theories all across the spectrum, from Marx to Parsons, lack potent directive and deductive force. Their infrequent models coordinate vaguely defined variables in over-generalized oversimplified assertions. Such theory cannot direct research precisely, and materials are not selected systematically.

WEBER'S NEGLECT OF PHILOSOPHIC SOURCES. Social scientists often acknowledge their dependence on philosophers, mathematicians, logicians, and natural scientists for guidelines to organize theories, to seed and prepare evidence, to confide in intellectual enterprise, and to narrate ethical connections. The intellectual foundations of sociology rest in philosophy, including ontology, cosmology, logic, language, epistomology, and ethics. The elder heroes, who led the exodus from philosophy transferred their interests to sociology, with their own academic background, loyalties, heroes, anti-heroes, and teachers. Marx's pantheon included Hegel, Rousseau, French and English socialists, the materialists, and British empiricists and economists.

Weber seems to have been influenced by Kant, Knies, Schmoler, Marx, and Nietzsche. His own intellectual friends were oriented toward history, economics, law, and politics, with men like Sombart, Michels, and Simmel. Others included his brother Alfred, Troeltsch, Tonnies, Windelband, the philosopher Hensel, and the psychiatrist-turned-philosopher, Jaspers (Marianne Weber 1975; Gerth & Mills 1958, 20).

Even more important are the ideas which were available at the time, but ignored by Weber. Such assumptions are easily forgotten by sociologists who are not educated to find them. As a result, both theorists and critics lose sense of foundation and proportion. Despite disagreements in perspective and theory, most commentators repute Weber to be a major scholar who is superbly educated and painstakingly well-read (Parsons 1937; Freund 1968; Mitzman 1960; Wallerstein 1974). In fact, Weber was less than widely read, often careless in his selections, and superficial in his understanding.

THE IDEAL TYPES. One of Weber's major contributions, concept formation, nowadays may seem archaic, even arcane. The literature is filled with references to ideal types (Becker & Barnes, 1952: Coser, 1971). Unfortunately, Weber's own guidelines are usually overlooked (Weber, 1947, 1949: 89-110, 139-142; 1964; Gerth & Mills, 1946; Freund, 1968). Basically, these procedures operate: 1) to integrate in an historical causal context; 2) to apply as an heuristic means; 3) as a paradigm of typical spiritual or mental attitudes; 4) to abstract and generalize the conditions producing these characteristics, to interpret their basis and express the rule representing the class-concept; and 5) to eliminate confusing elements of special groups or periods. The total pattern must be represented as a consistent whole, so the concept can provide an unambiguous meaning to otherwise disparate elements.

Construction of ideal types began with a borrowing from the existential world.

Types were used for the construction of arguments but were not to be confused with exact portraits of life. The parentage of ideal types appears mixed. The idea may have come to Weber through his friend, Simmel, or from Nietzsche, especially his concept of the Alexandrine man, Socrates (Kaufmann, 1968; Nietzsche, 1964). Nietzche's conception "ubermenschen" became Freud's "uberich" (superego) (Freud, 1961:7), and had effect on Jung, Jaspers, Scheler, and many others (Kaufmann, 1968). Other sources mentioned by Weber may have been Rickert, or Windelband, or Breysig, in a relevant discussion of concepts, typical characteristics, rules, laws, and heuristic instruments. Perhaps Rickert was the most likely. In any event, the ancestry of ideal types probably sprung from Hegel's use of moments and notions in the Science of Logic (1969) and may have proceeded through Husserl's ideal universals, which Husserl thought were proposed by acts of ideation (1969). Before the publication of The Protestant Ethic, Husserl had already proposed that perception involved the intentional synthesis of a variety of perspectives (1969, Giddens, 1977:24-33). This was especially apt for science, in which evidence clearly depended on the rigorous active coordination of scientific act and object. Physical, intellectual, and psychological elements can be separated by reduction. Husserl's ideas were developed in many directions, sometimes by men also associated with Weber, like Max Scheler, who moved toward ethical problems. Parallel to Husserl's work, and at about the same time, Russell clearly separated signification from denotation (1905). Thus use of concepts was liberated from strict empiricism.

Weber did not recognize the tremendous effects of the revolutions begun by Planck and Einstein, about the same time as the publication of Weber's Protestant Ethic. The bases of the new theories of radiation and relativity involved more use of imagination. Their confirmation required more instrumentation and less raw observation. They did supercede the Newtonian concepts of celestial mechanics. In its place arose shifting ideas and arbitrary assumptions, tied more to the limits of language or

technique, but much more closely resembling the conceptions of social science (Feigl, 1953; Zilsel, 1953; Schlick, 1974; Scheffler, 1967).

It seems unfortunate that concept formation has not been developed further in sociology; failure has befallen most conscious efforts to regularize sociological concepts (Lazarsfeld and Barton, 1951; Lazarsfeld and Rosenberg, 1955). The classic study of norms by Festinger, Schachter and Back (1955), treating them as an inferential construct, remains all but ignored. Weber's reputation seems to have spared ideal types, if only as museum pieces.

In sum, while Weber seemed unaware of the best thinking available, his use of concepts was ahead of his time among sociologists. His requirement that ideal types include normative and motivational elements is consistent with his systematic efforts to develop a theory of action though it too greatly narrows the domains for which concepts can be proposed (Weber, 1947; Parsons, 1937; Coser, 1971).

WHAT PROTESTANT ETHIC? Sometimes nothing is better fun than a controversy. One of the best concerns the origins of capitalism. One side of the issue is dominated by Weber's classic study of how Calvinism enhanced the growth of rationality in modern capitalism, and this hypothesis retrenched the generalizations of Marx and other historical materialists (Weber, 1930, 13-26, 55, 181-183; Green, 1959; Bendix, 1962; Wallerstein, 1973). Though Weber's proposals were subjected to persistent review by theologians, economists, historians, and sociologists (Harkness, 1931; Robertson, 1933; McNeill, 1948; Calvin, 1960:724n; Hirst, 1976), Fischoff (1944) showed how much of this commentary was superficial and defective. Still, it remains absolutely clear that in characterizing Calvinism, Weber neglected much in Calvin's Institutes, and there is no evidence that Weber read his sermons (1930: 98, 220, 224, 228). Calvin's doctrine concerning vocation and performance on which Weber based so much is a very minor part of the Institutes (1960:724). To Calvin, vocations simply represent one of God's many

providences, an opportunity to occupy a person's time to avoid sin. It is associated with his doctrine of esthetics. Similarly, in His mercy God provides many natural joys on which people may freely and pleasantly spend their time and avoid corruption. In contrast, Merton is on much surer theological ground in examining the relation of Protestant science to Calvinist teachings, where the duty to know God as well as possible is central (1973). According to Calvin, such knowledge may be sought through Jesus, justification, and regeneration; through scriptural study; and through study of the universe (1960).

Weber's argument that Calvinism extended rationality is so seriously oversimplified that it endangers the credibility of his hypothesis. Early Protestant theologians, and Calvin most clearly, stressed that reason suggested men could be saved by obedience to God's laws, especially the commandments of Moses or Christ. However, these requirements were so stiff that, in practice, salvation must come through faith. For this purpose God sent His son to be sacrificed, to offer the new covenant. Thus the early reformers continued the thinking of evangelical radical Christian prophecy, which could be traced through Augustine to the gnostics. These Protestants insisted that will was more important than reason. It was will that responded to the call or vocation, particularly in baptism, the remaining significant sacrament. It was will that men were reminded to apply to their daily lives; to help their neighbors, to keep busy with practical demands, to restrict their pleasures to the simple beauties God so providentially supplied (Calvin, 1960). In fact, the consequences of the Reformation included the revival of humanism, led by Protestants, with the destruction of a highly developed medieval logic (Boshenski, 1962; Ong, 1974). The interest in humanism, and the successes of science, later helped return a concern with classical logic, Roman law, and reason in general. The reascendence of reason peaked again in the 18th century, closer to the time of Franklin and Weber. Again, the passionate denials of reason evoked in early romanticism commonly originated among Protestants, and especially Calvinists. However, the Protestants' use of mathematics in science obscured their rejections of rationality, Thus the most gifted and most scrupulous modern critics are captured by Weber's error, even when they disagree with him, by accepting his sources of religious information (Bendix, 1962, 55-79; Ch. 8; Giddens, 1975, Ch. 2, 78-81). To put this problem in perspective, both Bendix and Giddens recognize the independent importance Weber gave political organization. Giddens cites Weber's account of the role of the Eastern junkers in creating capitalism, which was bureaucratic but not bourgeois and Giddens notes that Weber saw that modern capitalism depends upon and generates an expropriation of workers in many institutional domains beyond economics (1975, 49; 1973, 45, 139). More to the point, Bendix examines Weber's less known hypothesis that the political autonomy among institutional domains in Western civilization, especially the medieval cities, made a ready seed bed for Protestantism (Bendix 1962, 52, 70-79).

Bendix excuses Weber from causal imputation in The Protestant Ethic, saying that Weber only suggested an affinity between theology and a worldly code of conduct (1962:280). However, this contradicts Weber's own handling of ideal types and concepts and Weber's contention that he was demonstrating the limitations of materialism by showing how ideal interests promoted the early growth of economic rationality (1930:26). Thus it is fair to consider serious errors in Weber's methodological design (Robertson, 1933; Fischoff, 1944; Hirst, 1976). First his evidential criterion fitted the method of joining concepts he developed with ideal types. It does not allow inferences about causation. Instead, he seeks superficial agreement among 1) his independent variable, the ideal types of Calvinist theology, 2) his intervening variable, the Franklin work ethic, and 3) his dependent variable, modern rational capitalism. These descriptions were composed rather freely, allowing considerable bias to intrude.

Second, Weber postdated his description of Calvinism by a century, which quietly minimized discrepancies among his variables (Tawney, 1930). A serious historical distor-

tion resulted. For example, the emphasis put on bonds of brotherly affection by Governor Winthrop in 1630 stressed the duties to love enemies and assist the poor (1931; Morison, 1958, 73). One should lend money cheerfully to potential bankrupts, intending to forgive the loan if necessary. The importance Winthrop gave affection contrasted sharply with the formulae of the Westminster Confession of 1647, or the views of Baxter, in 1678, or of Bailey or Sener, on whom Weber relied extensively (Weber, 1930:224).

Third, Weber did not consider alternative cases: cases in which Calvinism either did not enhance capitalist growth or in which capitalism grew without its influence (1927; Tawney, 1930).

During the gap between the 1530's and the 1670's, ignored by Weber, vast changes occurred in science and education, some of them more directly promoted by Calvinist religious interests (Merton, 1970; 1973). In turn, these enhanced the growth and spread of technology. Weber was aware of the importance of technology too (Giddens, 1975:140). On the whole, he may have been right about the Protestant ethic, but for the wrong reasons. Fundamentally, he did not recognize the essential inferential paradox created by harnessing the logic of the experiment to continuous variables, such as time. Since continuities are infinitely divisible, the possibility of interference cannot be rejected. This was recognized by the Greeks (Schrodinger, 1950). The question of the missing century in Weber's argumentation is not idle. It contains the secret of whether a more elaborate, corrected version of his hypothesis is valid or not (Tawney, 1930:8-10).

MEANING AND METAPHYSICS: SPIRIT AND MATTER. To understand Weber's ideas, it is crucial to understand "meaning": the meaningful content of action or relationship is "a case of the meaning imputed to the parties in a given concrete case, on the average or in a theoretically formulated pure type. It is never a normatively 'correct' or metaphysically 'true' meaning." (1947: 118). Meaningful processes are "subjectively understandable" (1947:90). But to interpret meaning requires evidence, information, intuition, rules of procedure, judgmental criteria (1947:90, 87; 1949:135-147): thus, experience, empathy, taste, communication, imagination, formal models, empirical conventions, refined cultural standards of science, law art, or epistemology. To have meaning, something must be related to purpose, thus to action as either means or ends (1947:93). However, "the ideal type of meaningful action where the meaning is fully conscious and explicit is a marginal case" (1947:112). Altogether, meaning must have a coherence which can be generalized in terms of some experience, pattern, rule or model (1947:95, 99). Establishing a statistical uniformity based on behavior alone, as in natural science, gives no interpretation of meaning. Understanding requires connecting motives and outcomes. Weber's discussion regularly involved the observer, as reference, in such determinations. He was concerned more with meaning as method than substance, sharing Dilthey's view (1949:106, 124, 138; Giddens, 1977: 19). On the other hand, he was vulnerable and hypersensitive about, the possibilities of anthropomorphism (1949:186). Yet he preferred to approach motives from value-analytic interpretation and to avoid textual-linguistic analysis (1949:146). Thus Weber chose to ignore the crucial role of language as the medium of intersubjective experience and discourse (Giddens, 1977:19, 23-33). Giddens compared the simplicity of Weber's conception of meaning, and the primitive use he attached to social action, with the complexity of the issues raised by Schutz, following Husserl, in criticism of Weber (Schutz, 1967). Schutz maintained a closer contact with philosophy, and his work was more philosophically informed, though his interests and views differed widely from those of most philosophers. Even from a purely sociological interest, Weber missed the crucial dimensions of perspectival differences, the very basis of social relationships; thus of the reflexive concerns in meaning; of the linguistic problems of syntax, semantics, pragmatics.

Weber's notions seem plausible and useful until they are contrasted with the richness of their philosophical context. Then it is

clear that many of his most important ideas are drab, oversimplified, and even impotent. To gain perspective on Weber's ideas, we must review the outlines of Western philosophy, because their neglect perpetuates Weber's weaknesses. His conceptions of ideal types, meaning, and rationality, in particular, depend upon postures relative to the long metaphysical division among materialists, nominalists, and idealists within Western thought (Nilsson, 1964; 1969; 1972; Dodds, 1951; Lovejoy, 1964). However, this division was extracted in the debates between medieval Platonic and Aristotelian schoolmen on the distinction between spirit and matter and the relative independence of ideas, and existence or material nature. Epistemologically, this controversy focused on how information can cross the boundary between matter and mind, and how information can be assimilated. The issue covered logical rules, theories of proof, observation and experience, faith, psychological principles, learning, language and communication. The two principal sources of meaning are: 1) the associations of language with existential conditions, mediated by experience, thus with semantics or pragmatics; 2) the relationships among linguistic expressions or assertions, mediated through structure, thus with syntax.

In the tradition of Hume, Mill concerned himself with inductive logic and formalized the model of the experiment (1949). In 1880, Peirce explicitly recognized the indipendence of issues of inference and of existence: hence, within a logical system, the necessity of adding independent premises to introduce existential indications or conclusions (1931). Peirce's insight refracted this division into the much more precise problems of later positivism, with meaning and knowledge tied either to public experimental validation or to linguistically regulated proof. Russell tried to resolve the ontological dilemma by comprehending the existence of symbolism and meaning. These ideas were current intellectual topics, and available to Weber long before his death. Men of Weber's time proposed ways to resolve some of the epistemological, ontological, and sociological problems of the mind-body dualism by accommodating idealism to modern science, or to pragmatism) Lovejoy 1960; Russell 1905; Whitehead 1927; Northrop 1946; Heidegger 1972, 1977; G.H. Mead 1934, 1964).

WEBER'S CONCEPTS OF RATIONALITY AND RATIONALIZATION.

Weber identified clear and verifiable "proof of understanding (in interpretation) as either of a rational, i.e., logical or mathematical, or an emotionally emphatic, artistically appreciative character" (Weber, 1972:30). Weber used rational action as an ideal type with which it is possible to compare deviations as various instances of irrational action (1947:92). A rational model is developed by the sociologist, using his knowledge of the actor's ends and circumstances. Rational understanding of motivation "consists in placing the act in an intellegible and more inclusive context of meaning" (1947:95). Parsons, the translator, elucidated various modes of such meaningful relations, including logical consistency, esthetic harmony, or appropriateness of ideas to an end, distinguishing these from systems of causally interdependent elements (1947:95n).

In this context, Weber discussed different types of rational action. Wertrationalitat "is distinguished . . . by its clearly self-conscious formulation of the ultimate values governing the action and the consistently planned orientation of its detailed course to these values" (1947:116). Zweckrationalitat occurs when "the end, the means, and the secondary results are all rationally taken into account and weighed. This involves rational consideration of alternative means to the end, of the relations of the end to other prospective results of employment of any given means, and finally of the relative importance of different possible ends" (1947:117).

Weber differentiated formal and substantive rationality of economic action. Formal rationality designated "the extent of quantitative calculation or accounting which is technically possible and which is actually applied" (1947:184). Substantive rationality referred to the degree to which a course of economic action adequately provides goods to members of a given group. Variants of rationalization (1947:123) included the

independent rational calculation of self-interest evident, sometimes, in market action; the conscious rationalization of ultimate values, or the reduction or replacement of emotional or traditional values; and the development of a morally skeptical type of rationality, at the expense of any belief in absolute values. Giddens summarizes Weber's approach to rationalization as a dependence on "an interpretation of the fundamental significance of technique in modern social life" (1974:275). It is accompanied by loss of enchantment and by the substitution of rational legal prescriptions for religious, magical, or traditional norms.

However much Weber wrote about reason and logic, it is clear that he did not grasp their meaning. In discussing the structure of theories, for instance, Weber said "the history of the social science . . . remains a continuous process passing from the attempt to order reality analytically through the construction of concepts - the dissolution of analytical constructs . . . and the reformulation of a new of concepts . . ." (1949:105). "Progress . . . occurrs through . . . the perpetual reconstruction of concepts" (1949:105). Weber dispatched "the naturalistic prejudice that the goal of the social sciences must be the reduction of reality to laws" (1949:101). While he believed that efforts by Marx, Constant, and others to formulate laws or hypotheses were useful, they must be transcended by systems of concepts. Weber understood classification systems as hierarchies of ideas readily derived from a few easily formulated definitional principles (1949:96). He missed the basic point that deduction can only be made from one set of sentences to another, within a set of rules of inference. Further, the output of such operations is a sentence of some form. Weber's conception of progress is closer to the old Hegelian aim of increasing the completeness, reality, and necessity of conceptualization (1969).

Weber's conceptions are, unfortunately, ambiguous about the ontological status of rationality. Is his image of rationality to be associated with the rules of inference of logistic, thus with arbitrary, ideal rules? Or is it to be tied to semantics instead; ultimately to observable patterns or ideas about them? Or is it a term for a particular sort of social, material activity? On closer analysis, Weber's conception of rationality is technical and material, not logical.

REFERENCES

Becker, Howard, and Harry Elmer Barnes. Social Thought from Lore to Science. Gloucester, Mass: Peter Smith. 1952.

Bendix, Rheinhard. Max Weber: An Intellectual Portrait. Garden City, N.Y.: Doubleday Auchor. 1962.

Boshenski, I.M. A History of Formal Logic. Notre Dame, Ind.: University of Notre Dame. 1962.

Calvin, John. Institutes of the Christian Religion. John T. McNeill, Ed., Trans. Ford Lewis Battles. Philadelphia: Westminster Press. 1960.

Coser, Lewis. Masters of Sociological Thought. New York: Harcourt, Brace, Jovanovich. 1971.

Dodds, E.R. The Greeks and the Irrational. Berkeley: University of California Press. 1951.

Durkheim, Emile. The Elementary Forms of Religious Life. New York: Free Press. 1954.

Feigl, Herbert. "Notes on Causality" in Herbert Feigl and May Brodbeck, Eds. Readings in the Philosophy of Science. New York: Appleton-Century-Crafts. 1953.

Festinger, Leon, Stanley Schachter, and Kurt Back. "The Operation of Group Standards" Paul F. Lazarsfeld and Morris Rosenberg, eds. The Language of Social Research. New York: Free Press. 1955.

Fischoff, Ephraim. "The Protestant Ethic and the Spirit of Capitalism: The History of a Controversy" Social Research XI, 61-77. 1944.

Freud, Sigmund. Standard Edition of the Compete Works. Vol. XIX Trans. and Edt. by James Strachey. London: Hogarth Press. 1961.

Freund, Junien. The Sociology of Max Weber. Trans. Mary Ilford. New York: Pantheon Books. 1968.

Gerth, H.H., and C. Wright Mills, Eds. From Max Weber: Essays in Sociology. New York: Galaxy-Oxford University Press. 1958.

Giddens, Anthony. The Class Structure of Advanced Societies. New York: Harper and Row. 1975. New Rules of Sociological Method. New York: Basic Books. 1977.

Gordon Walker, P.C. "Capitalism and the Reformation." Economic History Review, VIII, 1, 1-18. 1937.

Green, Robert W., Ed. Protestantism and Capitalism: The Weber Thesis and its Critics. Boston: D.C. Heath. 1959.

Harkness, Georgia. John Calvin: The Man and his Ethics. New York: Henry Holt. 1931.

Hegel, George W.F. The Science of Logic, trans. A.V. Miller. New York: Humanities Press. 1969.

Heidegger, Martin. On Time and Being. New York: Harper and Row. 1972. Basic Writings. New York: Harper and Row. 1977.

Hirst, Paul Q. Social Evolution and Sociological Categories. New York: Holmes and Meier. 1976.

Husserl, Edmund. Gesammelte Werke. Hagg: M. Nijhoff. 1969.

Kaufmann, Walter, Ed. The Portable Nietzsche. New York: Viking Press. 1968.

Kuhn, Thomas. The Structure of Scientific Revolutions. Chicago: University of Chicago Press. 1960.

Lazarsfeld, Paul F., and Allen H. Barton. "Qualitative Measurement in the Social Sciences." Daniel Learner and Harold D. Lasswell, eds., Stanford: Stanford University Press. 1951.

Lazarsfeld, Paul F., and Morris Rosenberg. The Language of Social Research. New York: Free Press. 1955.

Lovejoy, Arthur. The Revolt against Dualism. La Salle, III.: The Open Court Publishing Co. 1930/1060. The Great Chain of Being. Cambridge, Mass.: Harvard University Press. 1964.

Mannheim, Karl. Ideology and Utopia. New York: Harcourt, Brace, Jovanovich. 1936.

Marx, Karl, and Friedrich Engels. The German Ideology. Moscow: Progress Publishers. 1968.

Mead, George Herbert. Mind, Self, and Society. Chicago: University of Chicago Press. Language and the Development of the Self. 1934. George Herbert Mead: On Social Psychology. Chicago: University of Chicago Press. 1964.

McNeill, John T. "Thirty Years of Calvin Study." Church History, XVII, 232-235. 1948.

Merton, Robert K. Social Theory and Social Structure. Glencoe, III.: Free Press. 1949. Science, Technology and Society in Seventeenth-Century England. New York: Howard Fertig, Inc. 1970. Sociology of Science. Chicago: University of Chicago Press. 1973.

Mill, John Stauart. A System of Logic: Principles of Evidence and Scientific Investigation. London: Longmans. 1949.

Mitzman, Arthur. The Iron Cage: An Historical Interpretation of Max Weber. New York: Alfred A. Knopf. 1970.

Morison, Samuel Eliot. Builders of the Bay Colony. Boston: Houghton, Mifflin. 1958.

Nietzsche, Friedrich. Human, All Too Human. Trans. Helen Zimmern. New York: Russell and Russell. 1964.

Nilsson, Martin Persoon. A History of Greek Religion. New York: W.W. Norton. 1964. Greek Piety. New York: U.W. Norton. 1969. Homer and Mycenae. Philadelphia: University of Pennsylvania. 1972.

Northrop, FSC. The Logic of the Sciences and the Humanities. New York: Macmillan. 1947.

Ong, Walter. Ramus: Method and the Decay of Dialogue. New York: Octagon Books. 1974.

Parsons, Talcott. The Structure of Social Action New York: McGraw-Hill. 1937.

Peirce, Charles S. Collected Papers. Cambridge, Mass.: Harvard University Press. 1931.

Robertson, H.M. Aspects of the Rise of Economic Individualism. Cambridge: Cambridge University. 1933.

Russell, Bertrand. "On Denoting," Mind. Vol. XIV. 1905.

Scheffler, Israel. Science and Subjectivity. Indianapolis: Bobbs-Merrill. 1967.

Schlick, Moritz. General Theory of Knowledge. New York: Springer. 1974.

Schrodinger, Erwin. Science and Humanism. Oxford: Oxford University Press. 1950.

Schutz, Alfred. The Phenomenology of Social World. Chicago: Northwestern University Press. 1967.

Tawney, R.H. Foreword. The Protestant

(From P. 44. TOOTELL)

Ethic and the Spirit of Capitalism. London: Allen and Unwin. 1930.

Wallerstein, Immanuel. The Modern World-System. New York: Academic Press. 1974.

Weber, Marianne. Max Weber: A Biography. Trans. Harry Zohn. New York: John Wiley and Sons. 1975.

Weber, Max. The Protestant Ethic and the Spirit of Capitalism, ed. and Trans. by Talcott Parsons. New York: Charles Scribner. 1930.

_____The Theory of Social and Economic Organization, ed. and trans. by Talcott Parsons. New York: Oxford University Press. 1947.

_____On the Methodology of the Social Sciences. Trans. Edward A. Schils and Henry A. Finch. Glencoe, Ill.: Free Press. 1949.

_____The Sociology of Religion. Boston: Beacon Press. 1964. Basic Concepts in Sociology. Trans. and Introduced H.P. Secher. Secaucus, N.J.: Citadel Press. 1974.

Whitehead, Alfred North. Science and the Modern World. London: Cambridge Univerwith Press. 1927.

Winthrop, John. "A Model of Christian Charity." Winthrop Papers. Boston: Massachusetts. Historical Society. 1931.

Zilsel, Edgar. "Physics and the Problems of Historic-Sociological Laws." Herbert Feigl and May Brodbeck, Eds. Readings in the Philosophy of Science. New York: Appleton-Century-Crofts. 1953.